Author Index to Volume 31

Anderson, R. C. See McAllister, P. R., 147
Atherton, P. See Cochrane, G., 283
Avram, H. D.
—; McCallum, S. E.: Directions in Library Networking, 438

Beasley, R. A.
Another Look at OCLC's Potential for Special Libraries (Communication), 300
Bennion, B. C. See Regazzi, J. J., 161
Performance Testing of a Book and its Index as an Information Retrieval System, 264
Bichteler, J.
—; Eaton, E. A., III: The Combined Use of Bibliographic Coupling and Cocitation for Document Retrieval, 278
Blair, D. C.
Searching Biases in Large Interactive Document Retrieval Systems, 271
Blische, C. L.
Photographic or Pictorial Collectors (Letter), 380
Bookstein, A.
Fuzzy Requests: An Approach to Weighted Boolean Searches, 240
Bourne, C. P.
—; Robinson, J.: Education and Training for Computer-Based Reference Services: Review of Training Efforts to Date, 25
On-line Systems: History, Technology, and Economics, 155
Boyle, S. O.
—; Miller, A. P.: Feature Comparison of an In-House Information Retrieval System with a Commercial Search Service, 309
Brittain, J. M.
—; Roberts, S. A.: Rationalization of Secondary Services: Measurement of Coverage of Primary Journals and Overlap between Services, 131
Brookes, B. C.
Measurement in Information Science: Objective and Subjective Metrical Space, 248
Brown, P.
The Half-Life of the Chemical Literature (Communication), 61
Buntrock, R. E.
Searching the Chemical Literature (Letter), 379
Burress, E. P.
Automated Indexing versus KWOC: A Performance Comparison (Communication), 60

Callahan, D. See Mick, C. K., 347
Caplan, P. See Dillon, M., 89
Cleveland, A. D.
Buck's Prime Number Coding Scheme—Author's Reply (Letter), 220
Cochrane, G.
—; Atherton, P.: The Cultural Appraisal of Efforts to Alleviate Information Inequity, 283
Cohen, J.
—; Vijverberg, W.: Applying Game Theory to Library Networks, 369
Cooper, D.
—; Emly, M. A.; Lynch, M. F.; Yeates, A. R.: Compression of Continuous Prose Texts Using Variety Generation, 201
Craven, T. C.
Microcomputer-Generated Graphic Displays as an Aid in String Indexing (Communication), 123
Crawford, S.
Perspectives on . . . Library Networks and Resource Sharing, 404
—; Rees, A. M.: Perspectives on...On-line Systems in Science and Technology, 153

Davis, P.
—; Sachs, W.: The Implementation of SCATT, 67

de Haen, P.
Coal Gasification (Letter), 125
Dillon, M.
—; Caplan, P.: A Technique for Evaluating Automatic Term Clustering, 89
Duncan, E. E.
Education and Training (Letter), 379

Eaton, E. A., III. See Bichteler, J., 278
Emly, M. A. See Cooper, D., 201
Epstein, H.
The Technology of Library and Information Networks, 425
Eres, B. K.
Review of *Legal Decisions and Information Systems*. Jon Bing and Trygve Harvold, 383

Freeman, R. R.
Data Bases—History of Developments and Trends (Letter), 453
Freudenthal, J. R.
—; Fuentes, H. G.: Information and Documentation in Chile: Progress Report. Bibliography 1974-1978, 445
Fuentes, H. G. See Freudenthal, J. R., 445

Garfield, E.
Highly Cited Old Papers—Author's Reply (Letter), 219
Griffith, B. C. See Servi, P. N., 36
Griffiths, J. B.
On the Value of Information (Letter), 303

Hales, C.
The Evolution of the International Information System on Research in Documentation (ISORID), 293
Hamill, K. A.
—; Zamora, A.: The Use of Titles for Automatic Document Classification, 396
Harding, A. F.
—; Willett, P.: Indexing Exhaustivity and the Computation of Similarity Matrices (Communication), 298
Heilprin, L. B.
The Library Community at a Technological and Philosophical Crossroads: Necessary and Sufficient Conditions for Survival, 389
Hentschke, G. C.
—; Kehoe, E.: Serial Acquisition as a Capital Budgeting Problem, 357
Heumann, K. F.
Indexers' Dreams, 24
Holt, T. D. See Kazlauskas, E. J., 363
Hurt, C. D.
An Examination of Differences between Two Studies of Highly Cited Old Papers (Communication), 215

Jackson, E. B.
—; Jackson, R. L.: Characterizing the Industrial Special Library Universe, 208
Jackson, R. L. See Jackson, E. B., 208

Kang, J. H.
—; Rouse, W. B.: Approaches to Forecasting Demands for Library Network Services, 256
Kazlauskas, E. J.
—; Holt, T. D.: The Application of a Minicomputer to Thesaurus Construction, 363
Kehoe, E. See Hentschke, G. C., 357
Kochen, M.
Cybics (Letter), 302
Kuch, T. D.
JASIS Publication Statistics (Letter), 303

Lancaster, F. W.
—; Smith, L. C.: On-line Systems in the Communication Process: Projections, 193
Review of *Online Searching: the Impact on User Charges of the Extended Use of Online Information Services*. T. P. Barwise, 127
Landau, R. N. See Wanger, J., 171
Lindsey, G. N. See Mick, C. K., 347
Line, M. B.
—; Sandison, A.: Journal Evaluation (Letter), 453
Lundeen, G. W.
Review of *The Dissemination of Information*. J. E. Rowley and C. M. D. Turner, 382
Lynch, M. F. See Cooper, D., 201

Marchant, M. P.
Review of *Introduction to the Use of Computer Packages for Statistical Analyses*. Richard W. Moore, 64
McAllister, P. R.
—; Anderson, R. C.; Narin, F.: Comparison of Peer and Citation Assessment of the Influence of Scientific Journals, 147
McCallum, S. E. See Avram, H. D., 438
McCarn, D. B.
MEDLINE: An Introduction to On-line Searching, 181
Meadow, C. T.
—; Zaborowski, M. A.: *JASIS* Publication Statistics—Authors' Reply (Letter), 303
On Refereeing of *JASIS* Papers, 307
Mick, C. K.
—; Lindsey, G. N.; Callahan, D.: Toward Usable User Studies, 347
Mignon, E.
Indexing and Behavior (Letter), 302
Review of *Progress in Communication Sciences, Volume 1*. Melvin J. Voigt and Gerhard J. Hanneman, 381
Miller, A. P. See Boyle, S. O., 309

Narin, F. See McAllister, P. R., 147
Neill, S. D.
Mysteries of the Deep: Models of the Universe of Knowledge (Communication), 375

O'Connor, J.
Answer-Passage Retrieval by Text Searching, 227
Oppenheim, C.
Highly Cited Old Papers (Letter), 219
Ozog, S.
On the Value of Information—Author's Reply (Letter), 304

Rao, I. K. R.
The Distribution of Scientific Productivity and Social Change, 111
Rastogi, K. B.
Retrieval Behavior of Derived Truncated Search Keys for a Large On-Line Bibliographic File, 84
Rees, A. M. See Crawford, S., 153
Regazzi, J. J.
—; Bennion, B. C.; Roberts, S. A.: On-line Systems of Disciplines and Specialty Areas in Science and Technology, 161
Renfro, C. G.
An Online Information System for Aggregate State and Local Area Economic Data, 319
Roberts, S. A. See Brittain, J. M., 131; Regazzi, J. J., 161
Robinson, B. M.
Cooperation and Competition among Library Networks, 413
Robinson, J. See Bourne, C. P., 25
Education and Training for Computer-Based Reference Services: A Case Study, 97
Rouse, W. B. See Kang, J. H., 256
Ryan, F. W.
Review of *The Social Sciences and Information* (In Russian) *(Obshchestvennye nauki i informatsiia)*. V. A. Vinogradov, 222

Sachs, W. See Davis, P., 67
Salton, G.
A Progress Report on Information Privacy and Data Security, 75
Buck's Prime Number Coding Scheme (Letter), 219
Sandison, A. See Line, M. B., 453
Servi, P. N.
—; Griffith, B. C.: A Method for Partitioning the Journal Literature, 36
Shuman, B. A.
Review of *The Search for a Scientific Profession; Library Science Education in the U.S. and Canada*. L. Houser and Alvin M. Schrader, 455
Smalley, T. N.
Comparing *Psychological Abstracts* and *Index Medicus* for Coverage of the Journal Literature in a Subject Area in Psychology, 143
Smith, L. C. See Lancaster, F. W., 193
Specht, J.
Patron Use of an Online Circulation System in Known-Item Searching, 335
Stevens, N. D.
Library Networks and Resource Sharing in the United States: An Historical and Philosophical Overview, 405

Vagianos, L. G.
Review of *Electronic Delivery of Documents and Graphics*. Daniel M. Costigan, 381
Van Ryzin, E.
Energy Technology–A Correction (Letter), 454
Veith, R. H.
Informatics and Transborder Data Flow: The Question of Social Impact, 105
Vijverberg, W. See Cohen, J., 369
Voos, H.
Implications of Holography for Information Systems (Communication), 449

Wanger, J.
—; Landau, R. N.: Nonbibliographic On-line Data Base Services, 171
Wasserman, A. I.
Information System Design Methodology, 5
Wellisch, H. H.
Journal of the ASIS vs. Nachrichten fur Dokumentation: A Comparative Analysis of Citations (Communication), 216
Review of *Indexing Concepts and Methods*. Harold Borko and Charles L. Bernier, 126
The Cybernetics of Bibliographic Control: Toward a Theory of Document Retrieval Systems, 41
Willett, P. See Harding, A. F., 298
Wittman, A.
Copyright and Information Transfer (Letter), 379

Yeates, A. R. See Cooper, D., 201

Zaborowski, M. A. See Meadow, C. T., 303
Zamora, A. See Hamill, K. A., 396
Automatic Detection and Correction of Spelling Errors in a Large Data Base, 51

Subject Index to Volume 31

Brief Communications, Letters, and Errata are denoted by the letters C, L, and E, respectively.

Abstracting and indexing services coverage, 131, 143
Acquisitions, cooperative, 405
Aquatic Sciences and Fisheries Information System (ASFIS), 453(L)
Automated indexing, 60(C)
Automated language processing, 51, 89, 201
Automatic classification procedures, 298(C)
Automatic document classification, 396
Automatic indexing, evaluation, 309
Automatic term clustering, evaluation, 89
Automatic thesaurus generation, 89

Bibliographic control, 438
—, theory, 41
Bibliographic coupling, 278
Bibliographic databases, 425
—, reviews, 161
Bibliometrics, 36, 61(C), 111, 147, 278
—, coal gasification literature, 125(L)
Book indexing, 264
Book reviews, 64, 126, 127, 222, 381, 382, 383, 455
Boolean queries, weighted, 240
Buck's prime number coding scheme, 219(L), 220(L)

CANCERLINE, 227
Capital budgeting for serials, 357
Chemical literature, 61(C)
—, classification, 396
—, online searching, 379(L)
Chile, documentation 1974-1978, 445
Circulation systems, use, 335
Citation analysis, 36, 61(C), 147, 215(C), 216(C), 219(L), 278
—, *JASIS*, 216(C), 303(L)
Citation databases, 36
Citation influence ratings, 147
Classification, automatic, 396
Clustering, automatic, 89
Cocitation, 278
Coding in information retrieval, 219(L), 220(L)
Communication process, 193
Communication sciences, 381
Comparison study, online search services, 379(L)
Computer-based reference services, 25, 97, 379(L)
Computer packages for statistical analysis, 64
Continuous prose texts, compression, 201
Cooperative acquisition, 405
Copyright, 379(L)
Cultural appraisal, 283
Cultural community, 283
Cultural pluralism, 283
Cybernetics of bibliographic control, 41
Cybics, 302(L)

Databases, error detection, 51
Data security, 75
Demand forecasting, 256
Derived search keys, 84
Dissemination of information, 382
Documentation, Spanish language sources, 445
Document classification, 396
Document retrieval, 278
Document retrieval systems, 41, 271

Economic data, 319
Editor's note, 307
Education, librarians, 455
Education for computer-based reference services, 25, 97, 379(L)
Electronic delivery of documents and graphics, 381
Energy technology information, 125(L), 454(L)
Evaluation, information system, 227
Exhaustive indexing, 298(C)

Facsimile transmission, 381
Financial aspects, special libraries, 208
Fuzzy requests, 240
Fuzzy sets, 240

Game theory, library networks, 369

Highly cited old papers, 215(C)
Holography, 449(C)

Idealized planning, 67
Indexers' dreams, 24
Indexing, 123(C), 126, 302(L)
—, books, 264
—, exhaustivity, 298(C)
—, performance testing, 264
Indexing concepts and methods, 126
Index Medicus, 143
Industrial special libraries, 208
Influence of scientific journals, 147
Information, dissemination, 382
Information analysis, USSR, 222
Information behavior, 347
Information inequity, 283
Information management, 75
Information poverty, 283
Information privacy, 75
Information retrieval, 240
—, book indexing, 264
—, coding scheme, 219(L), 220(L)
Information retrieval systems, 264, 309
Information science, Spanish language sources, 445
Information storage, 449(C)
Information system, evaluation, 227
Information systems, design, 5
—, international, 293
Information theory, 248
—, document retrieval, 41
Information transfer, 67
—, copyright, 379(L)
Information value, 303(L), 304(L)
INION, 222
Institute for Scientific Information on the Social Sciences (INION), 222
Institute of Gas Technology (IGT), 454(L)
Interlibrary lending, 256, 405
International information-processing networks, 105
International Information System on research in documentation ISORID, 293
Introduction to the use of computer packages for statistical analyses, 64

JASIS, 216(C)
—, publication statistics, 303(L)
—, refereeing, 307
Journal collection balance index, 453(L)
Journal coverage by abstracting and indexing services, 131
Journal literature, 36
Journal use, evaluation, 453(L)

Kentucky Economic Information System, 319
Key word indexing, 60(C)
Knowledge structures, 375(C)
Known-item searching, 335
KWOC, 60(C)

Legal decisions and information systems, 383
Legal informatics, 383
Letters, 125, 219, 220, 302, 303, 304, 379, 380, 453, 454
Library and Information Services Today (LIST), 293
Library community, 389
—, functions of, 389
—, survival of, 389
Library Networks, 369, 425, 438
—, modeling, 256
—, North America, 413
—, United States, 405
Library networks and resource sharing, perspectives, 404
Library science education, 455

Machine-aided indexing, 60(C)
Measurement in information science, 248
MEDLINE, 181
Mental constructs, 375(C)
Microcomputer-generated graphic displays, 123(C)
Minicomputers, applications, 363
Modeling, 256
Models, information behavior, 347

Nachrichten fur Dokumentation, 216(C)
National Information Center for Special Education Materials (NICSEM), 363
NEPHIS, 123(C)
Networks, 405, 413, 425, 438
—, international, 105
Nonbibliographic databases, 171
Numeric databases, 171, 319

OCLC, 300(C), 413
OCLC online union catalog, 84
Online bibliographic systems, 84
Online circulation systems, use, 335
Online searching, chemical literature, 379(L)
—, costs, 127
—, MEDLINE, 181
—, training, 25, 97, 379(L)
Online searching efficiency, 271
Online searching: the impact on user charges of the extended use of online information services, 127
Online systems, 161, 171, 193, 319
—, economics, 155
—, history, 155
—, technology, 155
Online systems and services, 425
Online systems in science and technology, perspectives on, 153
Online systems technology, 438
Operant conditioning, journal literature, 143

Passage retrieval, 227
Periodicals, uses, 215(C), 219(L)
Perspectives, online systems in science and technology, 153
Perspectives on library networks and resource sharing, 404
Photographic collections, automation, 380(L)
Pictorial collections, automation, 380(L)
Privacy, 75
Productivity of scientists, 111
Progress in communication sciences, 381
Psychological Abstracts, 143
Publication statistics, *JASIS*, 303(L)

Query formulation, 271

Ranked order of periodicals, 215(C), 216(C), 219(L)
Reference services, computer-based, 25, 97, 193, 379(L)
Regional library networks, 413, 425
Research Libraries Information Network (RLIN), 413
Resource sharing, United States, 405

SCATT, 67
Science citation index, discrepancies, 215(C), 219(L)
Scientific Communication and Technology Transfer System, 67
Scientific journal literature, evaluation, 147
Scientific literature, 36, 61(C), 111
—, bibliographic databases, 161
Search for a scientific profession, library science education in the U.S. and Canada, 455
Searching biases, online systems, 271
Search service, 309
Search strategy, 271
Secondary services, coverage, 131
Serials, acquisition, 357
—, user needs, 453(L)
Serials subscriptions, budgeting, 357
Set theory, weighted term searching, 240
Similarity matrices, 298(C)
Social mapping, 283
The social sciences and information (in Russian) (Obshchestvennye nauki i informatsiia), 222
Social sciences information, USSR, 222
Special libraries, 300(C)
—, industrial, 208
—, technical services, 300(C)
Spelling errors, automatic detection and correction, 51
Statistical analysis, 64
Statistics, *JASIS* publications, 303(L)
String index languages, 123(C)
Structure of scientific literature, 36
Subject indexing, 264
Systems, development, 5
—, evaluation, 5, 309

Telefacsimile transmission, 381
Text compression, 201
Text searching, 227
Thesaurus construction, 363
Thesaurus generation, 89
Title rank, fluctuations, 215(C), 219(L)
Transborder data flow, social impact, 105
Truncated search keys, 84

UNISIST, 293
Universal Bibliographic Control, 41
Universe of knowledge, 375(C)
University of Toronto Library Automation System (UTLAS), 413
User fees, 127
User studies, 347

Value-added information sources, 193
Value of information, 303(L), 304(L)
Variety generation, 201
Vocabulary control, 60(C)

Washington Library Network (WLN), 413
Weighted boolean searches, 240

Journal of the American Society for Information Science

Volume 31, 1980

Contents

January 1980, No. 1

Information System Design Methodology
A. I. Wasserman 5

Education and Training for Computer-Based Reference Services: Review of Training Efforts to Date
C. P. Bourne and J. Robinson 25

A Method for Partitioning the Journal Literature
P. N. Servi and B. C. Griffith 36

The Cybernetics of Bibliographic Control: Toward a Theory of Document Retrieval Systems
H. H. Wellisch 41

Automatic Detection and Correction of Spelling Errors in a Large Data Base
A. Zamora 51

Brief Communications

Automated Indexing versus KWOC: A Performance Comparison
E. P. Buress 60

The Half-Life of the Chemical Literature
P. Brown 61

Book Reviews 64

March 1980, No. 2

The Implementation of SCATT
P. Davis and W. Sachs 67

A Progress Report on Information Privacy and Data Security
G. Salton 75

Retrieval Behavior of Derived Truncated Search Keys for a Large On-Line Bibliographic File
K. B. Rastogi 84

A Technique for Evaluating Automatic Term Clustering
M. Dillon and P. Caplan 89

Education and Training for Computer-Based Reference Services: A Case Study
J. Robinson 97

Informatics and Transborder Data Flow: The Question of Social Impact
R. H. Veith 105

The Distribution of Scientific Productivity and Social Change
I. K. R. Rao 111

Brief Communications

Microcomputer-Generated Graphic Displays as an Aid in String Indexing
T. C. Craven 123

Letters to the Editor 125

Book Reviews 126

May 1980, No. 3

Rationalization of Secondary Services: Measurement of Coverage of Primary Journals and Overlap between Services
J. M. Brittain and S. A. Roberts 131

Comparing *Psychological Abstracts* and *Index Medicus* for Coverage of the Journal Literature in a Subject Area in Psychology
T. N. Smalley 143

Comparison of Peer and Citation Assessment of the Influence of Scientific Journals
P. R. McAllister, R. C. Anderson, and F. Narin 147

Compression of Continuous Prose Texts Using Variety Generation
D. Cooper, M. A. Emly, M. F. Lynch, and A. R. Yeates 201

Characterizing the Industrial Special Library Universe
E. B. Jackson and R. L. Jackson 208

Perspectives on . . .
On-line Systems in Science and Technology

Introduction 154

On-line Systems: History, Technology, and Economics
C. P. Bourne 155

On-line Systems of Disciplines and Specialty Areas in Science and Technology
J. J. Regazzi, B. Bennion, and S. Roberts 161

Nonbibliographic On-line Data Base Services
J. Wanger and R. N. Landau 171

MEDLINE: An Introduction to On-line Searching
D. B. McCarn 181

On-line Systems in the Communication Process: Projections
F. W. Lancaster and L. C. Smith 193

Brief Communications

An Examination of Differences between Two Studies of Highly Cited Old Papers
C. D. Hurt 215

***Journal of the ASIS* vs. *Nachrichten für Dokumentation:* A Comparative Analysis of Citations**
H. Wellisch 216

Letters to the Editor 219

Book Reviews 222

July 1980, No. 4

Answer-Passage Retrieval by Text Searching
J. O'Connor 227

Fuzzy Requests: An Approach to Weighted Boolean Searches
A. Bookstein 240

Measurement in Information Science: Objective and Subjective Metrical Spaces
B. C. Brookes 248

Approaches to Forecasting Demands for Library Network Services
J. H. Kang and W. B. Rouse 256

Performance Testing of a Book and its Index as an Information Retrieval System
B. C. Bennion 264

Searching Biases in Large Interactive Document Retrieval Systems
D. C. Blair 271

The Combined Use of Bibliographic Coupling and Cocitation for Document Retrieval
J. Bichteler and E. A. Eaton III 278

The Cultural Appraisal of Efforts to Alleviate Information Inequity
G. Cochrane and P. Atherton 283

The Evolution of the International Information System on Research in Documentation (ISORID)
C. Hales 293

Brief Communications

Indexing Exhaustivity and the Computation of Similarity Matrices
A. F. Harding and P. Willett 298

Another Look at OCLC's Potential for Special Libraries
R. A. Beasley 300

Letters to the Editor 302

September 1980, No. 5

Editor's Note: On Refereeing of *JASIS* Papers

Feature Comparison of an In-House Information Retrieval System with a Commercial Search Service
S. O. Boyle and A. P. Miller 309

An Online Information System for Aggregate State and Local Area Economic Data
C. G. Renfro 319

Patron Use of an Online Circulation System in Known-Item Searching
J. Sprecht 335

Toward Usable User Studies
C. K. Mick, G. N. Lindsey, and D. Callahan 347

Serial Acquisition as a Capital Budgeting Problem
G. C. Hentschke and E. Kehoe 357

The Application of a Minicomputer to Thesaurus Construction
E. J. Kazlauskas and T. D. Holt 363

Applying Game Theory to Library Networks
J. Cohen and W. Vijverberg 369

Brief Communications

MYSTERIES OF THE DEEP: Models of the Universe of Knowledge
S. D. Neill 375

Letters to the Editor 379

Book Reviews 381

November 1980, No. 6

PERSPECTIVES ON ...
Library Networks and Resource Sharing

Introduction 404

Library Networks and Resource Sharing in the United States: An Historical and Philosophical Overview
N. D. Stevens 405

Cooperation and Competition among Library Networks
B. M. Robinson 413

Network Technology Today
H. Epstein 425

Directions in Library Networking
H. D. Avram and S. E. McCallum 438

Articles

The Library Community at a Technological and Philosophical Crossroads: Necessary and Sufficient Conditions for Survival
L. B. Heilprin 389

The Use of Titles for Automatic Document Classification
K. A. Hamill and A. Zamora 396

Information and Documentation in Chile: Progress Report. Bibliography 1974–1978
J. R. Freudenthal and H. G. Fuentes 445

Brief Communications

Implications of Holography for Information Systems
H. Voos 449

Letters to the Editor 453

Book Reviews 455

Instructions for Contributors 452

Author Index 457

Subject Index 459

Volume Contents 461